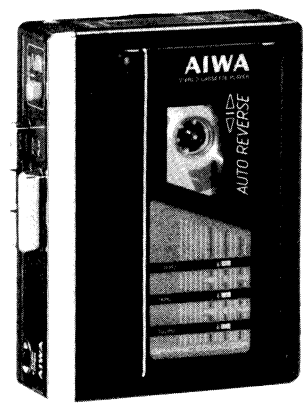
AIWA®

S/M Code No. 87-043
DATE OF ISSUE 7/1987-T

SERVICE MANUAL

MODEL NO. HS-G35MKII, G330

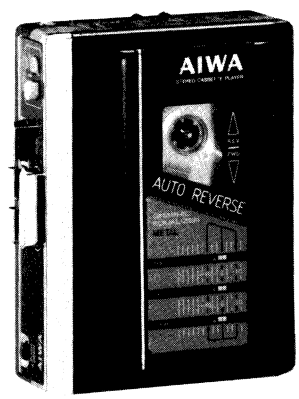


■STEREO CASSETTE PLAYER

■TYPE. Y

■BASIC MECHANISM: TN-52

MODEL NO. HS-G36, G360



■STEREO CASSETTE PLAYER

■TYPE. Y

■BASIC MECHANISM: TN-52

SPECIFICATIONS

Track format: 4-track, 2-channel stereo
Frequency response: 40—12,500 Hz (Normal tape)
40—16,000 Hz (Metal tape)
Maximum output: 15mW + 15mW [EIAJ/32Ω]
20mW + 20mW [EIAJ/16Ω]
Power source: Batteries, DC3V R6P (LR6, AA) × 2
Domestic AC power (with optional AC adaptor)
Battery life under continuous use:
EIAJ —1mW output, playback mode
Approx. 3.5 hours (Using manganese R6P batteries — SUM-3, AA batteries or equivalent)
Approx. 7 hours (Using alkaline LR6 batteries — AA batteries or equivalent)
Maximum dimensions: 91.5(W) × 118.1(H) × 37.3(D)mm
Weight: 310 g (including batteries)

- The Dolby noise reduction system is provided under licence from Dolby Laboratories.
- 'Dolby' and 'Double D' are trademarks of Dolby Laboratories.
- Design and specifications are subject to change without notice.

AIWA Co., Ltd. Tokyo Japan

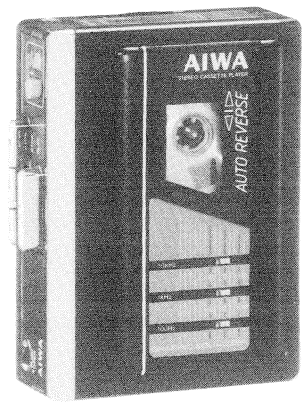
Printed in Japan

AIWA®

S/M Code No. 87-043
DATE OF ISSUE 7/1987-T

SERVICE MANUAL

MODEL NO. HS-G35MKII, G330

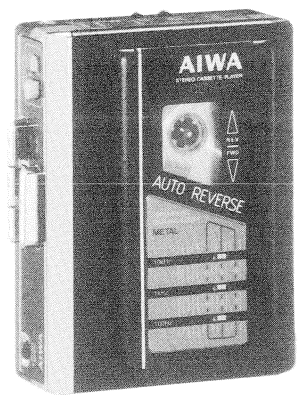


■STEREO CASSETTE PLAYER

■TYPE. Y

■BASIC MECHANISM: TN-52

MODEL NO. HS-G36, G360



■STEREO CASSETTE PLAYER

■TYPE. Y

■BASIC MECHANISM: TN-52

SPECIFICATIONS

Track format: 4-track, 2-channel stereo
Frequency response: 40—12,500 Hz (Normal tape)
40—16,000 Hz (Metal tape)
Maximum output: 15mW + 15mW [EIAJ/32Ω]
20mW + 20mW [EIAJ/16Ω]
Power source: Batteries, DC3V R6P (LR6, AA) × 2
Domestic AC power (with optional AC adaptor)
Battery life under continuous use:
EIAJ —1mW output, playback mode
Approx. 3.5 hours (Using manganese R6P batteries — SUM-3, AA batteries or equivalent)
Approx. 7 hours (Using alkaline LR6 batteries — AA batteries or equivalent)
Maximum dimensions: 91.5(W) × 118.1(H) × 37.3(D)mm
Weight: 310 g (including batteries)

- The Dolby noise reduction system is provided under licence from Dolby Laboratories.
- 'Dolby' and 'Double D' are trademarks of Dolby Laboratories.
- Design and specifications are subject to change without notice.

AIWA Co., Ltd. Tokyo Japan

Printed in Japan

DISASSEMBLY INSTRUCTIONS

1. Removing Rear Cabinet

1) Remove the 5 screws and 2 knobs. (See Figure-1)
   (Ⓐ×4 — 3.5mm, Ⓑ×1 — 5mm)

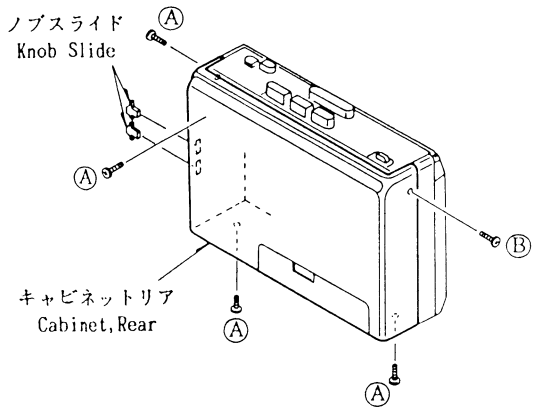


Fig-1

2. Removing Cassette Box

1) Remove the 2 screws and detach the spring.
2) Open the cassette box slightly, and slide it in the direction of the arrow. (See Figure-2)

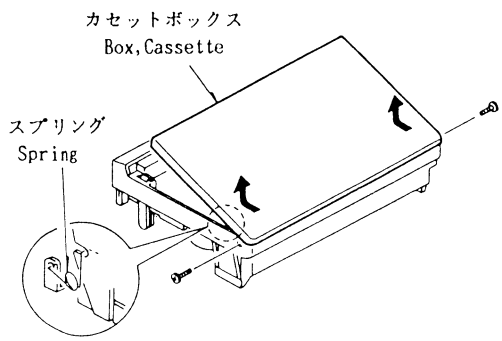


Fig-2

Note) The cassette box can be removed by setting its hooks (L&R) to the cutout portions of the frame holder as illustrated. (See Figure-3)

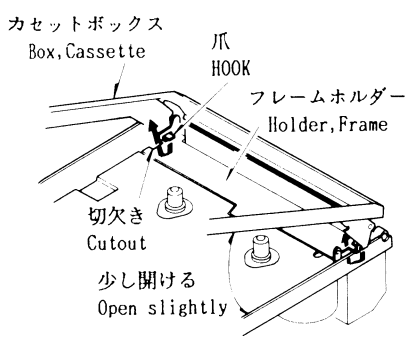


Fig-3

3. Removing Cassette Holder and G-EQ C.B.

1) Unhook the 2 claws of the cassette lid with using tweezers and equivalents.
2) Then remove the cassette holder in the direction of the arrow. (See Figure-4)

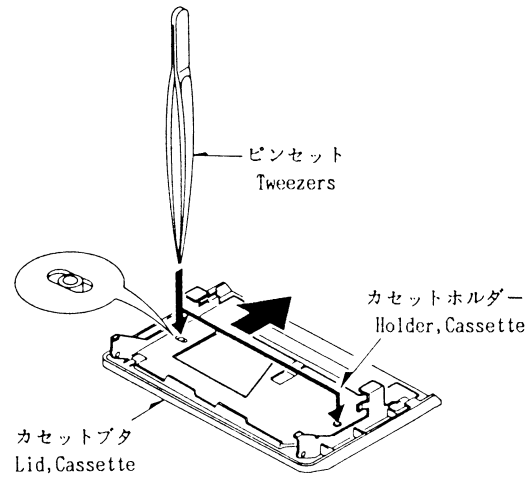


Fig-4

4. Removing Control Panel, Frame Holder and Cassette Frame

1) Remove control panel in the direction of the arrow.
2) Remove the 2 screws, Ⓐ to detach frame holder.
3) Remove the screw to, Ⓑ detach cassette frame.
4) Dissolder the battery terminal springs (⊕ and ⊖). (See Figure-5)

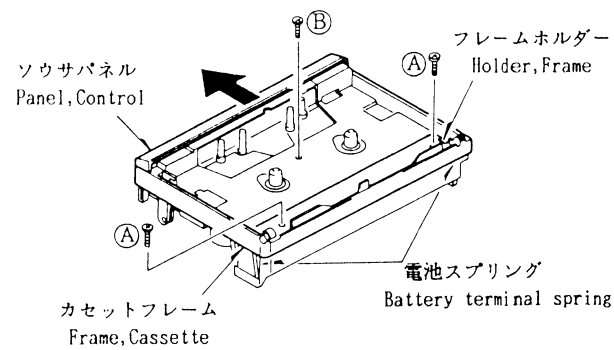


Fig-5

5. Removing Main C. B.

1) Peel of the shield paper and remove the maim circuit board mounting screw, Ⓐ. (See Figure-6)

Note) The screws, Ⓑ are for the jack holder. So, do not remove them in this procedure. (See Figure-6)

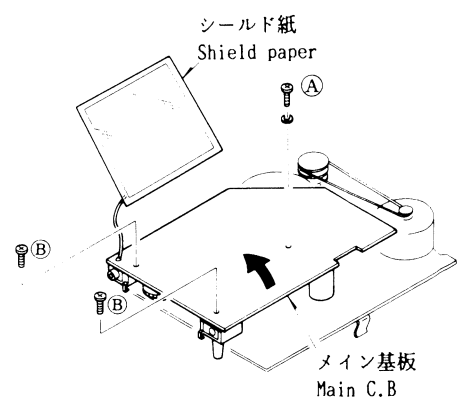
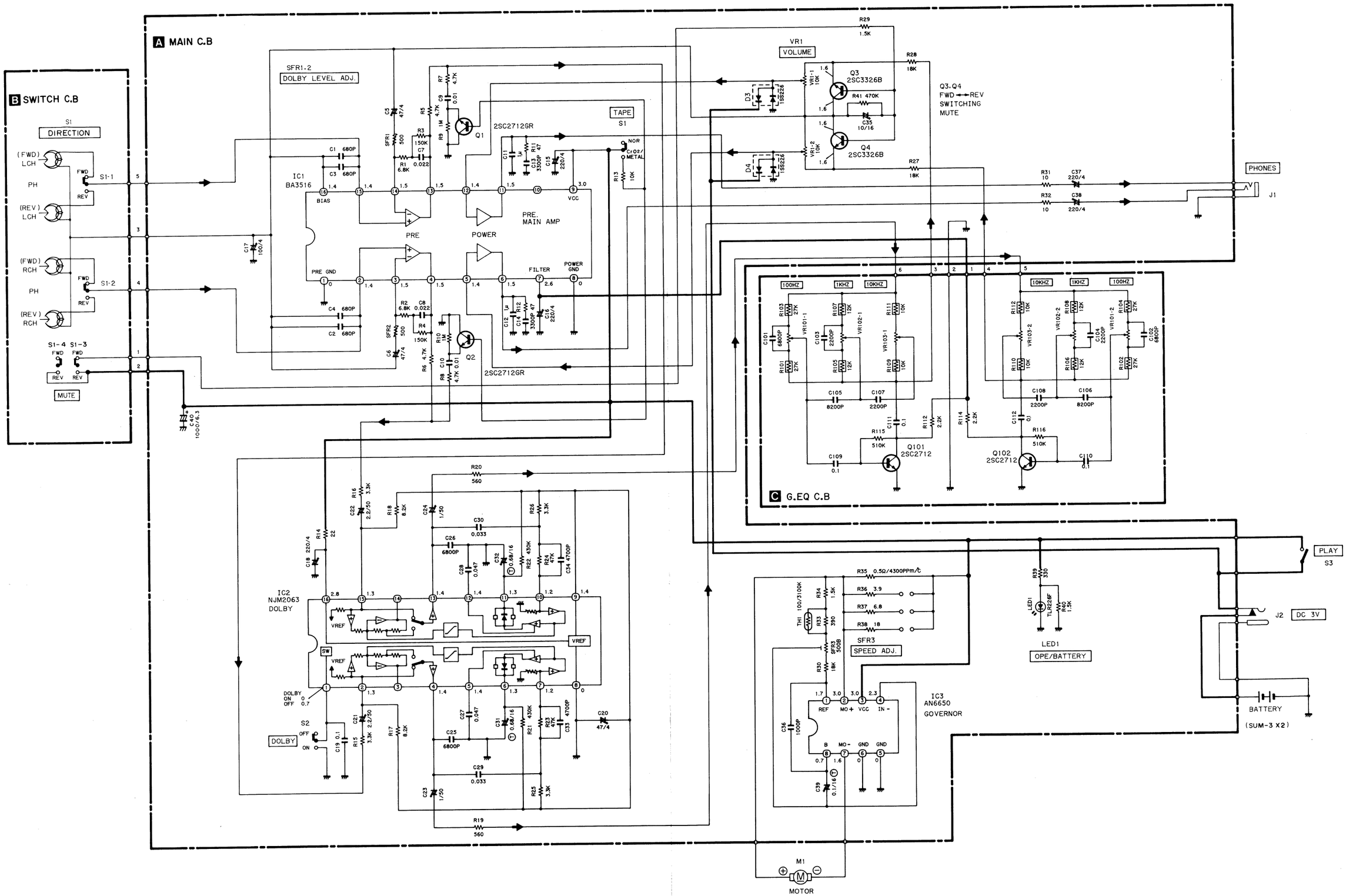


Fig-6

SCHEMATIC DIAGRAM (HS-G36/G360)



6. Remounting Control Panel

1) Remount the control panel as illustrated while holding the unit upside-down to leave the push-button open and the direction buttons free. (See Figure-7)

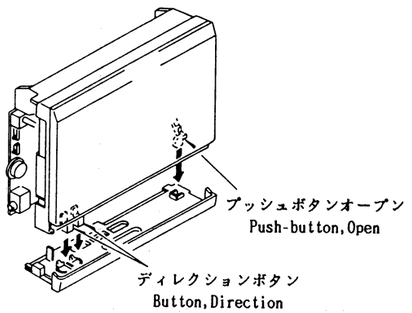
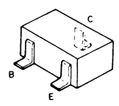


Fig-7

PRACTICAL SERVICE FIGURE

Wow & flutter: Less than 0.47%
Take-up torque: 38 ±15g-cm
FF/REW torque: 50～120g-cm
Signal to noise ratio: More than 47dB (DC)
Distortion: Less than 3% (at 1kHz)
Noise: Less than 7mV (DC, Vol MAX)



2SC2712
2SC3326

■ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	ORDER	DESCRIPTION	COMMON MODEL	Q'TY
	1	★84-449-904-019	S	INSTRUCTION BOOKLET (Y)	※	1
	2	★84-449-905-019	S	INSTRUCTION BOOKLET (YU)	※	1
	3	★87-048-124-019	S	HP-07 (Y1)		1
	4	★87-048-127-019	S	HP-M12 (EXCEPT Y1)		1

This service manual contains service information for only altered and added sections of Model HS-G35MKⅡ/G330. If requiring other service information, see the service manual of Model HS-G35/G350.

ELECTRICAL MAIN PARTS LIST (HS-G36/G360)

REF.NO	PART NO.	ORDER	DESCRIPTION
=== IC ===			
	87-020-766-019	S	IC,AN6650
	87-001-129-019	S	IC,BA3516
	87-020-224-019	S	IC,NJM2063A
=== TRANSISTOR ===			
	89-327-125-019	S	TRANSISTOR,2SC2712GR
	89-333-266-019	S	TRANSISTOR,2SC3326B
=== MAIN CIRCUIT BOARD SECTION ===			
PCB-A	84-449-601-019	S	MAIN CIRCUIT BOARD
C1	★87-010-176-019	S	CAP,CHIP 680P
C2	★87-010-176-019	S	CAP,CHIP 680P
C3	★87-010-176-019	S	CAP,CHIP 680P
C4	★87-010-176-019	S	CAP,CHIP 680P
C5	★87-010-114-019	S	CAP,ELECT 47-4
C6	★87-010-114-019	S	CAP,ELECT 47-4
C7	★87-010-198-019	S	CAP,CHIP 0.022
C8	★87-010-198-019	S	CAP,CHIP 0.022
C9	★87-010-190-019	S	CAP,CHIP 0.01
C10	★87-010-190-019	S	CAP,CHIP 0.01
C11	★87-010-452-019	S	CAP,CHIP 1U
C12	★87-010-452-019	S	CAP,CHIP 1U
C13	★87-010-184-019	S	CAP,CHIP 3300P
C14	★87-010-184-019	S	CAP,CHIP 3300P
C15	★87-015-908-019	S	CAP,ELECT 220-4
C16	★87-015-908-019	S	CAP,ELECT 220-4
C17	★87-010-115-019	S	CAP,ELECT 100-4
C18	★87-015-908-019	S	CAP,ELECT 220-4
C19	★87-010-196-019	S	CAP,CHIP 0.1
C20	★87-010-114-019	S	CAP,ELECT 47-4
C21	★87-010-072-019	S	CAP,ELECT 2.2-50V
C22	★87-010-072-019	S	CAP,ELECT 2.2-50V
C23	★87-010-071-019	S	CAP,ELECT 1-50
C24	★87-010-071-019	S	CAP,ELECT 1-50
C25	★87-010-188-019	S	CAP,CHIP S 6800P
C26	★87-010-188-019	S	CAP,CHIP S 6800P
C27	★87-010-194-019	S	CAP,CHIP 0.047
C28	★87-010-194-019	S	CAP,CHIP 0.047
C29	★87-015-834-019	S	CAP,CHIP 0.033
C30	★87-010-193-019	S	CAP,CHIP 0.033
C31	★87-010-195-019	S	CAP,CHIP 0.068
C32	★87-010-195-019	S	CAP,CHIP 0.068
C33	★87-015-818-019	S	CAP,CHIP 4700P
C34	★87-010-186-019	S	CAP,CHIP 4700P
C35	★87-010-075-019	S	CAP,ELECT 10-16
C36	★87-010-178-019	S	CAP,CHIP 1000P
C37	★87-015-908-019	S	CAP,ELECT 220-4
C38	★87-015-908-019	S	CAP,ELECT 220-4
C39	★87-015-382-019	S	CAP,TANTALUM 0.1-16
C40	★87-010-252-019	S	CAP,ELECT 1000-6.3
D3	87-020-339-019	S	DIODE,CHIP 1SS226
D4	87-020-339-019	S	DIODE,CHIP 1SS226
J1	87-049-585-019	S	JACK 3.5ST 2.5MM(PHONES)
J2	87-049-549-019	S	JACK DC(DC3V)
LED1	87-020-520-019	S	LED TLR-226(OPE/BATT)
R21	★87-022-033-019	S	RES,CHIP 430K
R22	★87-022-033-019	S	RES,CHIP 430K
R35	★87-025-433-010	J	RES,MF(PTR)0.5-1/8W
S1	87-031-816-019	S	SLIDE SW(TAPE)
S2	87-031-816-019	S	SLIDE SW(DOLBY NR)
SFR1	★87-021-873-010	J	SFR,500
SFR2	★87-021-873-010	J	SFR,500
SFR3	★87-021-883-010	J	SFR,500B
TH1	★87-026-256-010	J	THERMISTOR 100/3100K
VR1	81-198-615-019	S	VOLUME 10KA(VOLUME)
=== SWITCH CIRCUIT BOARD SECTION ===			
PCB-B	★80-426-001-019	S	SWITCH CIRCUIT BOARD
PH	S6-205-070-500	J	HEAD PH
S1	S6-403-020-400	J	SLIDE SW(DIRECTION)
=== GEQ CIRCUIT BOARD SECTION ===			
PCB-C	★84-447-602-019	S	GEQ ASSY(W/PCB)
=== MISCELLANEOUS ===			
M1	S6-005-070-120	J	MOTOR
S3	S6-417-010-900	J	LEAF SW(PLAY)

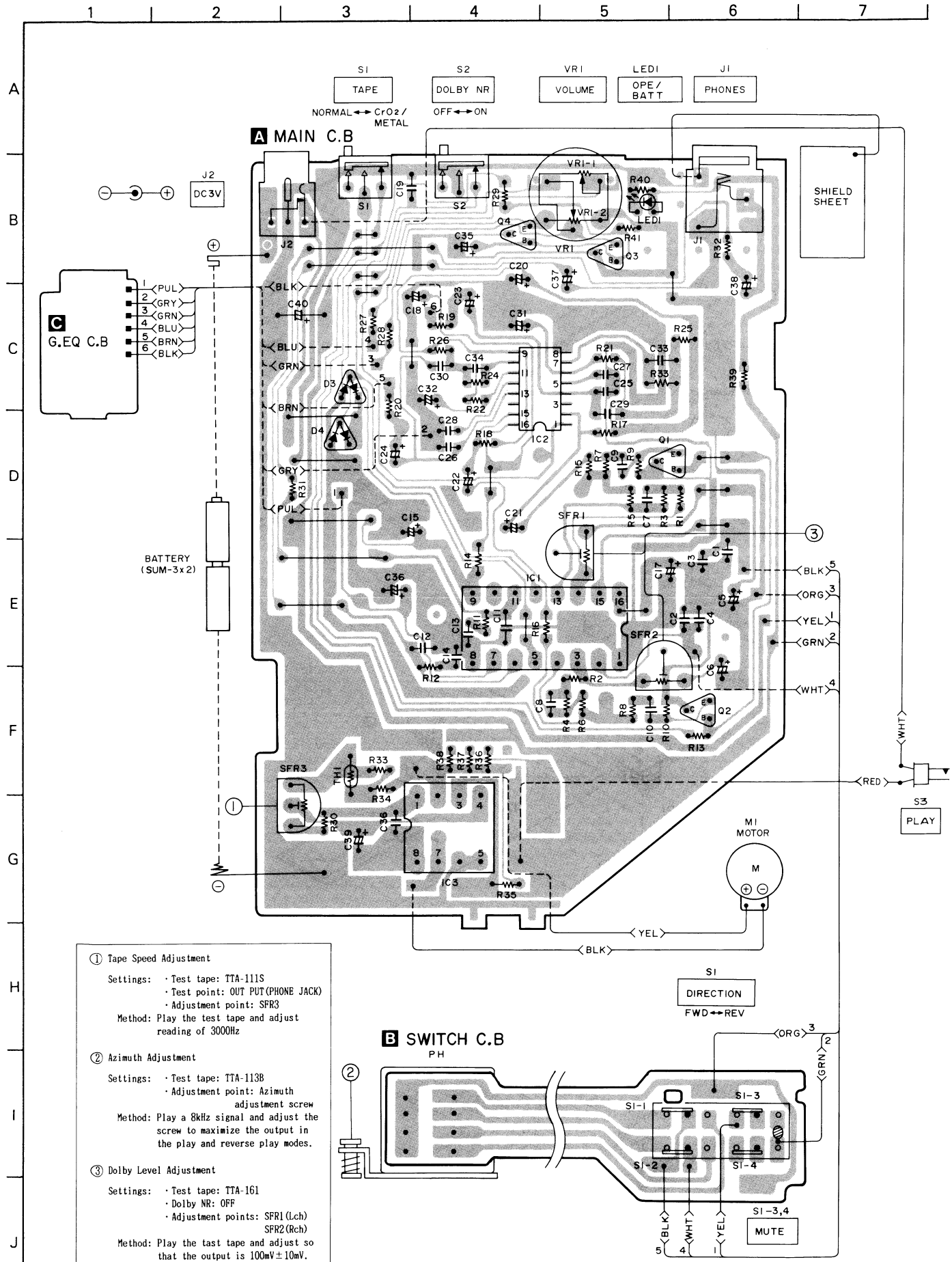
ELECTRICAL MAIN PARTS LIST (HS-G35MKⅡ/G330)

See the HS-G35/G350 Service Manual for the electrical main parts list.
The following parts have been changed for this model.

REF.NO	PART NO.	ORDER	DESCRIPTION
===MAIN CIRCUIT BOARD SECTION===			
C115	★87-010-088-019	S	CAP,TANTALUM 2.2-10
C116	★87-010-088-019	S	CAP,TANTALUM 2.2-10
C125	★87-010-084-019	S	CAP,TANTALUM 0.1-16
C126	★87-018-131-019	S	CAP,CERA-SOL SS 1000P
===GEQ CIRCUIT BOARD SECTION===			
PCB-C	★84-447-602-019	S	GEQ ASSY (W/PCB)
===MISCELLANEOUS===			
M1	S6-005-070-120	J	MOTOR

Note When placing an order for service parts, always enter the parts code number up to the last numeral on the service parts ordering sheet.

WIRING (HS-G36/G360)



① Tape Speed Adjustment

Settings: · Test tape: TTA-111S
· Test point: OUT PUT(PHONE JACK)
· Adjustment point: SFR3

Method: Play the test tape and adjust reading of 3000Hz

② Azimuth Adjustment

Settings: · Test tape: TTA-113B
· Adjustment point: Azimuth adjustment screw

Method: Play a 8kHz signal and adjust the screw to maximize the output in the play and reverse play modes.

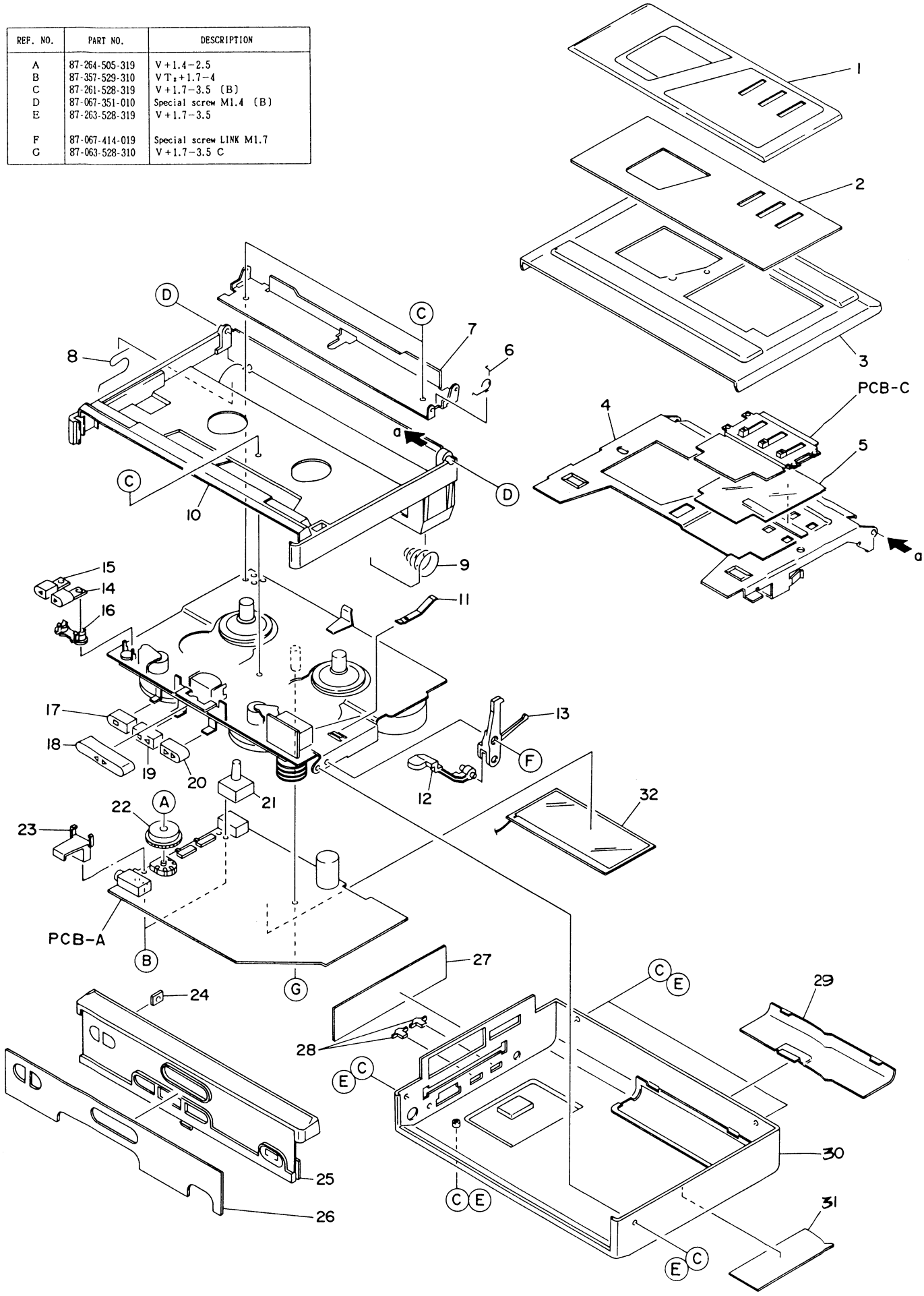
③ Dolby Level Adjustment

Settings: · Test tape: TTA-161
· Dolby NR: OFF
· Adjustment points: SFR1(Lch) SFR2(Rch)

Method: Play the tast tape and adjust so that the output is 100mV±10mV.

EXPLODED VIEW-1

REF. NO.	PART NO.	DESCRIPTION
A	87-264-505-319	V+1.4-2.5
B	87-357-529-310	VT₂+1.7-4
C	87-261-528-319	V+1.7-3.5 (B)
D	87-067-351-010	Special screw M1.4 (B)
E	87-263-528-319	V+1.7-3.5
F	87-067-414-019	Special screw LINK M1.7
G	87-063-528-310	V+1.7-3.5 C

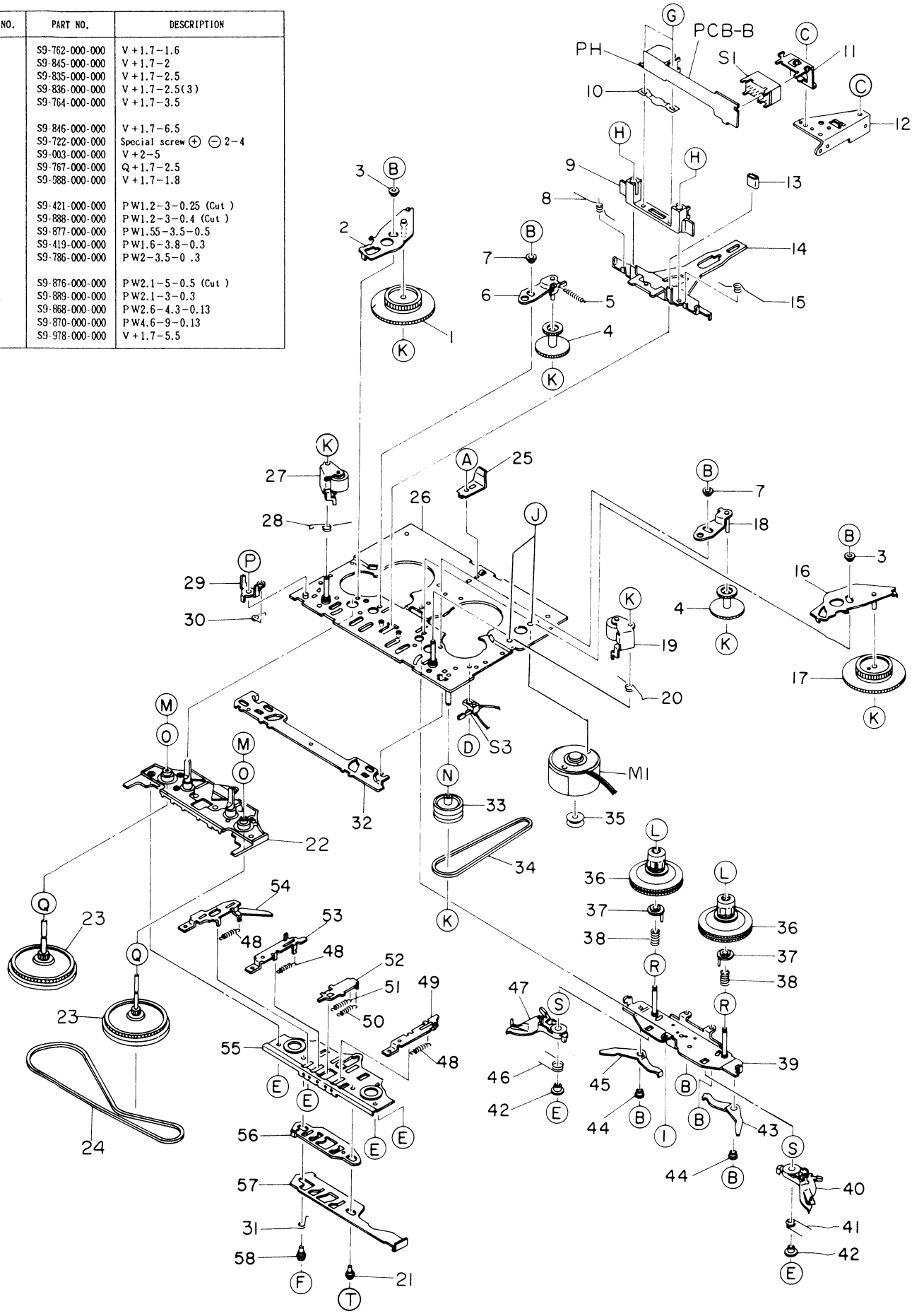


MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	ORDER	DESCRIPTION	COMMON MODEL	Q'TY
	1-1	84-449-003-019	S	WINDOW, CASSETTE Y (HS-G36, G360)	※	1
	1-1	84-449-004-019	S	WINDOW, CASSETTE L Y (HS-G35MKⅡ)	※	1
	1-1	84-449-010-019	S	WINDOW, CASSETTE L YU (HS-G330)	※	1
	1-2	84-449-202-019	S	ADHESIVE, WINDOW	※	1
	1-3	84-449-002-019	S	LID, CASSETTE (BK) (HS-G36, G360)	※	1
	1-3	84-449-009-019	S	LID, CASSETTE L (BK) (HS-G35MKⅡ, G330)	※	1
	1-4	★84-447-201-010	J	HOLDER, CASSETTE		1
	1-5	★84-447-204-019	S	MYLAR, G-EQ		1
	1-6	★84-400-217-019	S	T-SPRING, CLICK	HS-T06	1
	1-7	★84-447-202-019	S	HOLDER, FRAME		1
	1-8	★84-447-210-010	J	BATTERY TERMINAL PL		1
	1-9	★84-400-216-119	S	BATTERY TERMINAL (-)	HS-T06	1
	1-10	★84-447-004-019	S	FRAME, CASSETTE [B]		1
	1-10	★84-447-037-019	S	FRAME, CASSETTE [S, WR]		1
	1-11	★84-400-204-110	J	P-SPRING, UP	HS-T06	1
	1-12	★84-447-012-019	S	PUSH-BUTTON, OPEN		1
	1-13	★84-447-206-019	S	LEVER, LOCK		1
	1-14	★84-447-011-019	S	PUSH-BUTTON, FWD		1
	1-15	★84-447-010-019	S	PUSH-BUTTON, REV		1
	1-16	★84-447-203-019	S	COLLAR, DIRECTION		1
	1-17	★84-447-009-019	S	PUSH-BUTTON, STOP		1
	1-18	★84-447-006-019	S	PUSH-BUTTON, PLAY		1
	1-19	★84-447-008-019	S	PUSH-BUTTON, REW		1
	1-20	★84-447-007-019	S	PUSH-BUTTON, FF		1
	1-21	---		HOLDER, DC JACK		1
	1-22	★82-690-012-110	J	KNOB, VOLUME		1
	1-23	---		HOLDER, ANT D		1
	1-24	★84-400-206-019	S	PLATE, NUT	HS-T06	1
	1-25	★84-447-003-019	S	PANEL, CONTROL		1
	1-26	★84-449-006-010	J	NAME PLATE, CONTROL	※	1
	1-27	★84-449-005-010	J	NAME PLATE, SIDE Y (HS-G36)	※	1
	1-27	★84-449-023-010	J	NAME PLATE, SIDE YU (HS-G36)	※	1
	1-27	★84-449-011-010	J	NAME PLATE, SIDE L Y (HS-G35MKⅡ)	※	1
	1-27	★84-449-027-010	J	NAME PLATE, SIDE L YU (HS-G330)	※	1
	1-28	84-447-013-019	S	KNOB, SLIDE A (HS-G36, G360)	※	2
	1-28	84-449-007-019	S	KNOB, SLIDE B (HS-G35MKⅡ, G330)	※	1
	1-29	84-449-023-019	S	LID, BATTERY [B]	※	1
	1-29	84-449-024-019	S	LID, BATTERY [S]	※	1
	1-29	84-449-025-019	S	LID, BATTERY [WR]	※	1
	1-30	★84-449-001-019	S	CABINET, REAR [B]	※	1
	1-30	★84-449-012-019	S	CABINET, REAR [S]	※	1
	1-30	★84-449-016-019	S	CABINET, REAR [WR]	※	1
	1-31	---		LABEL, SPEC		1
	1-32	---		SHIELD SHEET		1

EXPLODED VIEW-2

REF. NO.	PART NO.	DESCRIPTION
A	S9-762-000-000	V+1.7-1.6
B	S9-845-000-000	V+1.7-2
C	S9-835-000-000	V+1.7-2.5
D	S9-836-000-000	V+1.7-2.5(3)
E	S9-764-000-000	V+1.7-3.5
F	S9-846-000-000	V+1.7-6.5
G	S9-722-000-000	Special screw ⊕ ⊖ 2-4
H	S9-003-000-000	V+2-5
I	S9-767-000-000	Q+1.7-2.5
J	S9-988-000-000	V+1.7-1.8
K	S9-421-000-000	PW1.2-3-0.25 (Cut)
L	S9-888-000-000	PW1.2-3-0.4 (Cut)
M	S9-877-000-000	PW1.55-3.5-0.5
N	S9-419-000-000	PW1.6-3.8-0.3
O	S9-786-000-000	PW2-3.5-0.3
P	S9-876-000-000	PW2.1-5-0.5 (Cut)
Q	S9-889-000-000	PW2.1-3-0.3
R	S9-868-000-000	PW2.6-4.3-0.13
S	S9-870-000-000	PW4.6-9-0.13
T	S9-978-000-000	V+1.7-5.5



PART NO. CHANGED TO	REF. NO.	PART NO.	ORDER	DESCRIPTION	COMMON MODEL	Q'TY
	2-1	S1-852-060-030	J	GEAR, T. CAM (R)		1
	2-2	S1-852-063-010	J	T. GEAR ARM R ASSY		1
	2-3	★S1-852-050-060	J	COLLAR, T. ARM		2
	2-4	S1-852-070-030	J	GEAR FF		2
	2-5	★S1-852-070-040	J	SPRING, FF GEAR ARM		1
	2-6	★S1-852-083-010	J	FF GEAR ARM R ASSY		1
	2-7	★S1-852-050-040	J	COLLAR, ARM		2
	2-8	★S1-852-040-050	J	SPRING, PINCH ROLLER R		1
	2-9	★S1-852-040-020	J	GUIDE, TAPE		1
	2-10	★S1-852-040-030	J	SPRING, HEAD PLATE		1
	2-11	---		BRACKET, SW		1
	2-12	---		BOARD, BRACKET		1
	2-13	---		UL TUBE		1
	2-14	★S1-852-040-010	J	PANEL, HEAD		1
	2-15	★S1-852-040-040	J	SPRING, PINCH ROLLER F		1
	2-16	★S1-852-053-010	J	T. GEAR ARM F ASSY		1
	2-17	S1-852-050-030	J	GEAR, T. CAM F		1
	2-18	★S1-852-073-010	J	FF GEAR ARM F ASSY		1
	2-19	S1-852-095-010	J	PINCH ROLLER ARM F ASSY		1
	2-20	★S1-852-050-050	J	SPRING, T. GEAR ARM F		1
	2-21	★S1-852-022-900	J	COLLAR, ACTUATING F		1
	2-22	★S1-852-022-0D0	J	BUTTON BASE ASSY		1
	2-23	★S1-852-125-010	J	FLYWHEEL ASSY		2
	2-24	S1-852-140-100	J	BELT (FL) A		1
	2-25	★S1-852-150-030	J	SPRING PLATE, PACK BEARING A		1
	2-26	---		CHASSIS ASSY		1
	2-27	S1-852-105-010	J	PINCH ROLLER ARM R ASSY		1
	2-28	★S1-852-060-020	J	SPRING, T. GEAR ARM R		1
	2-29	★S1-852-030-020	J	REVERSE ARM		1
	2-30	★S1-852-030-030	J	SPRING, REVERSE		1
	2-31	★S1-852-020-150	J	SPRING, ACTUATING PLATE		1
	2-32	★S1-852-030-010	J	PLATE, SLIDE		1
	2-33	S1-852-130-020	J	CENTER PULLEY A		1
	2-34	S1-852-140-050	J	BELT M		1
	2-35	S1-852-140-010	J	M PULLEY		1
	2-36	S1-852-114-030	J	REEL PLATFORM ASSY A		2
	2-37	★S1-852-110-270	J	DETECTION PLATE A		2
	2-38	★S1-852-110-290	J	SPRING, B. T. A		2
	2-39	★S1-852-113-060	J	REEL PLATE ASSY		1
	2-40	★S1-852-110-140	J	LEVER, AUTO F		1
	2-41	★S1-852-110-150	J	SPRING, AUTO LEVER F		1
	2-42	★S1-852-110-160	J	COLLAR, AUTO LEVER		2
	2-43	★S1-852-110-190	J	ARM, AUTO CONTROL F		1
	2-44	★S1-852-110-260	J	COLLAR, AUTO CONTROL		2
	2-45	★S1-852-110-210	J	ARM, AUTO CONTROL R		1
	2-46	★S1-852-110-180	J	SPRING, AUTO LEVER R		1
	2-47	★S1-852-110-170	J	LEVER, AUTO R		1
	2-48	★S1-852-020-120	J	SPRING, LEVER		3
	2-49	★S1-852-020-040	J	FF LEVER F		1
	2-50	★S1-852-020-140	J	SPRING, RC		1
	2-51	★S1-852-020-130	J	SPRING, HP		1
	2-52	★S1-852-020-030	J	PLATE, HP		1
	2-53	★S1-852-020-050	J	FF LEVER R		1
	2-54	★S1-852-020-060	J	LEVER, STOP		1
	2-55	★S1-852-020-070	J	HOLD PLATE		1
	2-56	★S1-852-020-170	J	LOCK ACTUATING PLATE		1
	2-57	★S1-852-020-090	J	ACTUATING PLATE, SWITCH		1
	2-58	★S1-852-020-100	J	COLLAR, ACTUATING PLATE		1

Note When placing an order for service parts, always enter the parts code number up to the last numeral on the service parts ordering sheet.